

REMARKS

By the present Amendment, Applicants cancel claim 7 without prejudice or disclaimer of the subject matter thereof; amend claims 2, 4, and 8 to more appropriately claim the invention; and amend claim 18 to correct a typographical error. As a result of this Amendment, claims 1-6, 8-15, and 18 remain pending.

In the Office Action dated May 20, 2004, the Examiner objected to claim 18 due to a typographical error. In response, Applicants have amended claim 18 to correct the error. Thus, Applicants respectfully submit that the objection to claim 18 must be withdrawn.

Further, claim 7 was rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the enablement requirement. Claims 1, 2, 13, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,177,915 to *Beeteson et al.* in view of U.S. Patent No. 6,115,021 to *Nonomura et al.*; claims 3-6 and 9-11 were rejected under 35 U.S.C. §103(a) as unpatentable over *Beeteson* in view of *Nonomura* and further in view of U.S. Patent No. 3,956,661 to *Sakamoto et al.*; claims 7, 8, 14, and 15 were rejected under 35 U.S.C. §103(a) as unpatentable over *Beeteson* in view of *Nonomura* and further in view of U.S. Patent No. 6,121,943 to *Nishioka et al.*; and claim 12 was rejected under 35 U.S.C. §103(a) as unpatentable over *Beeteson* in view of *Nonomura* and further in view of *The Electrical Engineering Handbook*, CRC Press, 1993.

Applicants respectfully traverse each of these rejection and submit that present pending claims 1-6, 8-15, and 18 are allowable for at least the following reasons.

Section 112 Rejections

Applicants respectfully traverse the Examiner's rejection of claim 7 under 35 U.S.C. § 112, first paragraph. In order to expedite prosecution of the present application, however, Applicants have cancelled claim 7, and incorporated subject matter thereof into claim 2, thereby rendering the Examiner's Section 112 rejection of claim 7 moot. Applicants further submit that claim 2, as amended, satisfies 35 U.S.C. § 112, first paragraph.

Section 103 Rejections

To properly establish a *prima facie* case of obviousness, the Examiner must demonstrate that all claim elements are taught or suggested by the prior art cited by the Office. Accordingly, with respect to claim 1, the Examiner must show that *Beeteson*, in combination with *Nonomura*, discloses or suggests all the elements recited in claim 1.

Beeteson discloses a liquid crystal display circuit for displaying a visual image in response to a video signal. *Beeteson*, col. 2, lines 6-9. *Beeteson*'s liquid crystal display panel is divided into a plurality of addressable, variable brightness pixel cells.

Beeteson, col. 2, lines 26-28. In *Beeteson*, row and column drive signals determine the brightness of each pixel cell. *Beeteson*, col. 4, lines 23-26.

Nonomura discloses an apparatus for driving a ferroelectric liquid crystal panel. *Nonomura*, col. 4, lines 26-28. *Nonomura*'s apparatus "includes a temperature detection device for detecting an operation temperature of the ferroelectric liquid crystal panel; and a signal output device for outputting a driving signal based on a field

frequency ... and a frame frequency determined in correspondence with the operation temperature of the ferroelectric liquid crystal panel.” *Nonomura*, col. 4, lines 39-46.

Beeteson fails to disclose a “temperature compensation circuit, provided in said data driver power circuit, for compensating a temperature characteristic of said liquid crystal display device by changing the voltage level of said data driver voltage,” as recited in claim 1k. And the Examiner acknowledges this shortcoming of *Beeteson*. See *Office Action*, p. 3, lines 13-14. Further, *Beeteson* fails to disclose a “voltage regulation circuit, provided in said data driver power circuit, for regulating the voltage level of said data driver voltage supplied to said liquid crystal display device to a predetermined value,” as recited in claim 1, and the Examiner does not allege otherwise. Rather, the Examiner relies on *Nonomura*, which according to the Examiner, discloses both a temperature compensation circuit and a voltage regulation circuit. Office Action at page 3.

Contrary to the Examiner’s assertion, however, *Nonomura* does not teach either a “voltage regulation circuit” or “temperature compensation circuit,” as recited in claim 1. Specifically, the Examiner asserts that *Nonomura*’s temperature sensor 30 corresponds to the temperature compensation circuit, Office Action at page 3. According to *Nonomura*, however, an output from temperature sensor 30 is sent to temperature compensation power supply circuit 35 (*Nonomura*, col. 12, lines 8-9 and Fig. 10), instead of “changing the voltage level of said data driver voltage,” as recited in claim 1.

Further, the Examiner contends that *Nonomura*’s compensation reference voltage generation circuit 33 constitutes a “voltage regulation circuit,” as recited in claim

1. As shown in Fig. 10 of *Nonomura et al.*, however, compensation reference voltage generation circuit 33, supplies voltage to buffer 34, (see Fig. 10, col. 12 lines 14-26) instead of "regulating the voltage level of said data driver voltage," as recited in claim 1.

Furthermore, neither *Beeteson* nor *Nonomura et al.* discloses or suggests both a "voltage regulation circuit for regulating the voltage level of [a] data driver voltage supplied to said liquid crystal display device to a predetermined value" and a "temperature compensation circuit for compensating a temperature characteristic of [a] liquid crystal display device by changing the voltage level of said data driver voltage" provided in a data driver power circuit, as recited in claim 1. *Nonomura*, for example, illustrates data electrode driving circuit 22, which is separate from temperature compensation power supply circuit 35.

Claims 3-6 and 9-11 also ultimately depend from allowable claim 1 and include all the elements thereof. As discussed above, the combination of *Beeteson* and *Nonomura* fails to disclose or suggest each and every element of claim 1, and thus, of claims 3-6 and 9-11. Further, contrary to the Examiner's assertion, combining *Sakamoto* with *Beeteson* and *Nonomura* does not overcome this deficiency. Therefore, for at least these reasons, Applicants respectfully request the reconsideration and withdrawal of the section 103 rejection of claims 3-6 and 9-11.

In addition, the Examiner fails to show that there is any suggestion or motivation to combine the cited references to result in the claimed invention nor a reasonable expectation of success in doing so. Indeed, neither does *Beeteson* nor *Nonomura* nor *Sakamoto* provide any suggestion or motivation to combine them to result in the

claimed invention as discussed above. And the Examiner even does not so allege.

Therefore, Applicants respectfully request the reconsideration and withdrawal of the section 103 rejection of claims 3-6 and 9-11.

As discussed above, claim 7 has been cancelled, and the Examiner's rejection of this claim under the Section 103 as being unpatentable over *Beeteson* and *Nonomura* is moot. Moreover, *Nishioka et al.* fails to overcome the above-described deficiencies of *Beeteson* and *Nonomura*. Claims 8, 14, and 15 are thus allowable at least due to their dependency from claim 1.

In light of the above-described shortcomings of *Beeteson et al.* and *Nonomura et al.*, Applicants submit that claim 1 is allowable over the applied reference. Moreover, claims 2, 13 and 18 are allowable at least due to their dependence from claim 1.

Finally, with respect to claim 12, the Examiner relies on the Electrical Engineering Handbook allegedly for teaching "the use of MOS transistors." Applicants respectfully submit, however, that even if such teachings were combinable with *Beeteson et al.* and *Nonomura et al.* in the manner proposed by the Examiner, the Electrical Engineering Handbook would still fail to overcome the deficiencies of *Beeteson et al.* and *Nonomura et al.* discussed above. Claim 12, therefore, is allowable at least due to its dependence from claim 1.

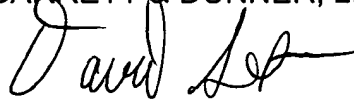
PATENT
Customer No. 22,852
Application No. 09/492,789
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Attorney Docket No. 1165.0770-00

In view of the foregoing, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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